

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing Of All Claims

1. (Currently Amended) A method comprising:
generating packets of content data to be broadcast from a content provider system via a
network wherein the packets of content data include metadata describing the content
data;
composing a playlist designating an order in which said packets of content are to be
broadcast;
composing a transmission of said packets of content data based on said playlist; and
executing said transmission of said packets of content data according to said playlist and a
transmission policy, wherein the transmission policy is based on a playout policy and
one or more network resources that are available for said transmission, wherein the
playout policy is a list of protocol-neutral and protocol-specific transmission settings,
and wherein the protocol-specific transmission settings are specific to a protocol used
by a transmission execution process.
2. (Original) The method of claim 1, wherein said generating packets of content data and said
composing a playlist are performed by the content provider system.

3. (Original) The method of claim 1, wherein said composing a transmission and executing said transmission are performed by a broadcast system head-end.
4. (Original) The method of claim 1, wherein said metadata comprises Extensible Markup Language (XML) tags.
5. (Original) The method of claim 1, wherein said metadata comprises pre-show content discovery information.
6. (Original) The method of claim 1, wherein said metadata comprises real-time content discovery information.
7. (Original) The method of claim 1, wherein said generating packets of content data comprises:
gathering content to be broadcast from a content cache on the content provider system;
separating said content into packages and package elements within the packages;
assigning each package and package element a unique identifier;
storing said packages in a package cache;
assigning metadata tags identifying content within the packages and package elements to the
packages and package elements; and
marking tagged packages as ready for inclusion in playlists.
8. (Original) The method of claim 7, wherein said composing a playlist comprises:

grouping all related packages into content groups;
encapsulating content groups into a playlist; and
passing the playlist to a transmission composition process.

9. (Original) The method of claim 8, further comprising concatenating two or more portions of metadata in the playlist prior to passing the playlist to a transmission composition process to generate metadata representing the entire playlist.
10. (Original) The method of claim 8, wherein said encapsulating content groups into a playlist further comprises encapsulating said content groups into a Motion Picture Experts Group-2 (MPEG-2) multiplex.
11. (Original) The method of claim 1, wherein said composing a transmission comprises:
selecting a playlist for scheduling;
defining playout policy parameters;
determining bandwidth required to transmit the playlist;
determining transmission policy parameters based on the bandwidth required to transmit the playlist and the playout policy parameters;
assigning network resources to the playlist based on the transmission policy;
caching the transmission as active and scheduled.
12. (Original) The method of claim 8, wherein said executing said transmission comprises:
reading a previously generated transmission;

loading transmission policy parameters;
encoding announcement data for each content package into an announcement data stream
describing a schedule of content to be broadcast during execution of the transmission;
encoding metadata for each content package into a metadata stream providing a description
of content within a content stream;
sending pre-show content discovery information describing a schedule of content to be
broadcast during execution of the transmission; and
sending announcement, metadata and content data streams according to a predefined timeslot
format.

13. (Previously Presented) The method of claim 12, further comprising:

receiving said packets of content data at a receiver connected with said content provider
system via said network; and

selectively caching or presenting the packets based on a comparison of the metadata
describing the content data and user profile information stored on the receiver,
wherein said receiving said packets of content data comprises:

reading the announcement data stream;
finding a predetermined metadata Uniform Resource Locator (URL) in the
announcement data stream identifying a location of the metadata stream;
decoding the metadata stream identified by the predetermined metadata URL;
correlating metadata from the decoded metadata stream to user profile information
stored within the receiver;

preparing cache space adequate to store content that has metadata matching the user profile information; and
caching packages with metadata highly correlated with the filtering criteria.

14. (Currently Amended) A system comprising:

a content provider system to generate packets of content data to be broadcast from the content provider system via a first network connected with the content provider system wherein the packets of content data include metadata describing the content data and compose a playlist designating an order in which said packets of content are to be broadcast; and

a broadcast system head-end connected with said content provider system via said first network to receive said packets of content data and said playlist, compose a transmission of said packets of content data based on said playlist, and execute said transmission of said packets of content data according to said playlist and a transmission policy, wherein the transmission policy is based on a playout policy and one or more network resources that are available for said transmission, wherein the playout policy is a list of protocol-neutral and protocol-specific transmission settings, and wherein the protocol-specific transmission settings are specific to a protocol used by a transmission execution process.

15. (Original) The system of claim of claim 14, wherein said content provider system:
gathers content to be broadcast from a content cache on the content provider system;
separates said content into packages and package elements within the packages;

assigns each package and package element a unique identifier;
stores said packages in a package cache;
assigns metadata tags identifying content within the packages and package elements to the
packages and package elements; and
marks tagged packages as ready for inclusion in playlists.

16. (Original) The system of claim 15, wherein said content provider system:
groups all related packages into content groups;
encapsulates content groups into a playlist; and
passes the playlist to a transmission composition process.
17. (Original) The system of claim 16, content provider system further concatenates two or more
portions of metadata in the playlist prior to passing the playlist to a transmission composition
process to generate metadata representing the entire playlist.
18. (Original) The system of claim 14, wherein said broadcast system head-end:
selects a playlist for scheduling;
defines playout policy parameters;
determines bandwidth required to transmit the playlist;
determines transmission policy parameters based on the bandwidth required to transmit the
playlist and the playout policy parameters;
assigns network resources to the playlist based on the transmission policy;
caching the transmission as active and scheduled.

19. (Original) The system of claim 15, wherein said broadcast system head-end:
- reads a previously generated transmission;
 - loads transmission policy parameters;
 - encodes announcement data for each content package into an announcement data stream
 - describing a schedule of content to be broadcast during execution of the transmission;
 - encodes metadata for each content package into a metadata stream providing a description of
 - content within a content stream;
 - sends pre-show content discovery information describing a schedule of content to be
 - broadcast during execution of the transmission; and
 - sends announcement, metadata and content data streams according to a predefined timeslot
 - format.
20. (Previously Presented) The system of claim 19, further comprising:
- a receiver connected with said broadcast system head-end via a second network to receive said packets of content data and selectively cache or present the packets based on a comparison of the metadata describing the content data and user profile information stored on the receiver, wherein said receiver:
 - reads the announcement data stream;
 - finds a predetermined metadata Uniform Resource Locator (URL) in the announcement data stream identifying a location of the metadata stream;
 - decodes the metadata stream identified by the predetermined metadata URL;

correlates metadata from the decoded metadata stream to user profile information stored

within the receiver;

prepares cache space adequate to store content that has metadata matching the user profile information; and

caches packages with metadata highly correlated with the filtering criteria.

21. (Currently Amended) A machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause the processor to:
- generate packets of content data to be broadcast from a content provider system via a network wherein the packets of content data include metadata describing the content data,
- compose a playlist designating an order in which said packets of content are to be broadcast;
- compose a transmission of said packets of content data based on said playlist; and
- execute said transmission of said packets of content data according to said playlist and a transmission policy, wherein the transmission policy is based on a playout policy and one or more network resources that are available for said transmission, wherein the playout policy is a list of protocol-neutral and protocol-specific transmission settings, and wherein the protocol-specific transmission settings are specific to a protocol used by a transmission execution process.
22. (Original) The machine-readable medium of claim 21, wherein said generating packets of content data and said composing a playlist are performed by the content provider system.

23. (Original) The machine-readable medium of claim 21, wherein said composing a transmission and executing said transmission are performed by a broadcast system head-end.
24. (Original) The machine-readable medium of claim 21, wherein said metadata comprises Extensible Markup Language (XML) tags.
25. (Original) The machine-readable medium of claim 21, wherein said metadata comprises pre-show content discovery information.
26. (Original) The machine-readable medium of claim 21, wherein said metadata comprises real-time content discovery information.
27. (Original) The machine-readable medium of claim 21, wherein said generating packets of content data comprises:
gathering content to be broadcast from a content cache on the content provider system;
separating said content into packages and package elements within the packages;
assigning each package and package element a unique identifier;
storing said packages in a package cache;
assigning metadata tags identifying content within the packages and package elements to the
packages and package elements; and
marking tagged packages as ready for inclusion in playlists.

28. (Original) The machine-readable medium of claim 27, wherein said composing a playlist comprises:
- grouping all related packages into content groups;
 - encapsulating content groups into a playlist; and
 - passing the playlist to a transmission composition process.
29. (Original) The machine-readable medium of claim 28, further comprising concatenating two or more portions of metadata in the playlist prior to passing the playlist to a transmission composition process to generate metadata representing the entire playlist.
30. (Original) The machine-readable medium of claim 21, wherein said composing a transmission comprises:
- selecting a playlist for scheduling;
 - defining playout policy parameters;
 - determining bandwidth required to transmit the playlist;
 - determining transmission policy parameters based on the bandwidth required to transmit the playlist and the playout policy parameters;
 - assigning network resources to the playlist based on the transmission policy;
 - caching the transmission as active and scheduled.
31. (Original) The machine-readable medium of claim 28, wherein said executing said transmission comprises:

reading a previously generated transmission;
loading transmission policy parameters;
encoding announcement data for each content package into an announcement data stream
describing a schedule of content to be broadcast during execution of the transmission;
encoding metadata for each content package into a metadata stream providing a description
of content within a content stream;
sending pre-show content discovery information describing a schedule of content to be
broadcast during execution of the transmission; and
sending announcement, metadata and content data streams according to a predefined timeslot
format.

32. (Previously Presented) The machine-readable medium of claim 31, further comprising:
receive said packets of content data at a receiver connected with said content provider system
via said network; and
selectively cache or present the packets based on a comparison of the metadata describing the
content data and user profile information stored on the receiver, wherein said
receiving said packets of content data comprises:
reading the announcement data stream;
finding a predetermined metadata Uniform Resource Locator (URL) in the
announcement data stream identifying a location of the metadata stream;
decoding a metadata stream identified by the predetermined metadata URL;
correlating metadata from the decoded metadata stream to user profile
information stored within the receiver;

preparing cache space adequate to store content that has metadata matching the user profile information; and

caching packages with metadata highly correlated with the filtering criteria.